CLAIMS

What is claimed is:

1. A connector rod for connecting a vehicle steering mechanism to a vehicle wheel, said connector rod comprising;

a first end pivotally connectable to the vehicle steering mechanism to allow said connector rod to pivot in a first plane relative to the vehicle steering mechanism;

a second end adapted for connection to the vehicle wheel assembly;

a shaft portion interconnecting said first and second ends, said shaft portion being formed from a flexible material to allow said connector rod to deform in a second plane, approximately orthogonal to the first plane, in response to movement of said second end of said connector rod in the second plane.

2. The connector rod as set forth in claim 1, wherein said first end of said connector rod includes an aperture for receiving a support shaft of the vehicle steering mechanism, said aperture extending through said connector rod orthogonal to the first plane to allow said connector rod to pivot about the support shaft in the first plane.

3. The connector rod as set forth in claim 1, wherein said shaft portion is formed from a fiber reinforced compound.

4. The connector rod as set forth in claim 1, wherein said second end is cylindrical in shape and includes external threads for engaging a pivotal connection to the vehicle wheel assembly.

5. A vehicle steering assembly comprising;

a vehicle steering mechanism;

a wheel assembly including a pivotal wheel hub for supporting a wheel, a knuckle mounted to said hub, and a pivot arm extending outward from said knuckle;

a connector rod interconnecting said vehicle steering mechanism and said pivot arm for transmitting motion from said vehicle steering mechanism to said wheel assembly;

said connector rod including a first end pivotally connected to said vehicle steering mechanism to allow said connector rod to pivot in a first plane in relation to said vehicle steering mechanism, a second end pivotally connected to said pivot arm, and a shaft portion interconnecting said first and second ends;

said shaft portion being formed from a flexible material to allow said connector rod to deform in a second plane, approximately orthogonal to the first plane, in response to movement of said second end of said connector rod in the second plane.

6. The vehicle steering assembly as set forth in claim 5, wherein said vehicle steering mechanism includes a support shaft and said first end of said connector rod includes an aperture for receiving said support shaft, said support shaft being oriented orthogonal to the first plane to allow said connector rod to pivot about said support shaft in the first plane.

7. The vehicle steering assembly as set forth in claim 5, wherein said shaft portion of said connector rod is formed from a fiber reinforced compound.

8. The vehicle steering assembly as set forth in claim 5, wherein said second end of said connector rod is cylindrical in shape and includes external threads for engaging a connection to the vehicle wheel assembly.

9. The vehicle steering assembly as set forth in claim 8 including a ball joint disposed between and interconnecting said second end of said connector rod and said pivot arm to allow pivotal movement of said connector rod relative to said vehicle wheel assembly.

10. A connector rod for connecting a vehicle steering mechanism to a vehicle wheel assembly, said connector rod comprising;

a first end adapted for pivotal connection to the vehicle steering mechanism, whereby said connector rod is allowed to pivot in a first plane relative to the vehicle steering mechanism;

a second end adapted for connection to the vehicle wheel assembly;

a shaft portion interconnecting said first and second ends;

said first end including a radial spherical bearing disposed between said first end and the vehicle steering mechanism to allow said connector rod to pivot in a second plane, approximately orthogonal to the first plane, in response to horizontal movement of said second end of said connector rod in the second plane.

11. The connector rod as set forth in claim 10, wherein said first end of said connector rod includes an aperture for receiving a support shaft of the vehicle steering mechanism, said aperture extending through said connector rod orthogonal to the first plane to allow said connector rod to pivot about the support shaft in the first plane.

12. The connector rod as set forth in claim 10, wherein said second end is cylindrical in shape and includes external threads for engaging a pivotal connection to the vehicle wheel assembly.

13. A vehicle steering assembly comprising;

a vehicle steering mechanism;

a wheel assembly including a pivotal wheel hub for supporting a wheel, a knuckle mounted to said hub, and a pivot arm extending outward from said knuckle;

a connector rod interconnecting said vehicle steering mechanism and said pivot arm for transmitting motion from said vehicle steering mechanism to said wheel assembly;

said connector rod including a first end pivotally connected to said vehicle steering mechanism to allow said connector rod to pivot in a first plane in relation to said vehicle steering mechanism, a second end pivotally connected to said pivot arm, and a shaft portion interconnecting said first and second ends;

said first end including a radial spherical bearing disposed between said first end and said vehicle steering mechanism to allow said connector rod to pivot in a second plane, approximately orthogonal to the first plane, in response to movement of said second end of said connector rod in the second plane.

14. The vehicle steering assembly as set forth in claim 13, wherein said vehicle steering mechanism includes a support shaft and said first end of said connector rod includes an aperture for receiving said support shaft, said support shaft being oriented orthogonal to the first plane to allow said connector rod to pivot about said support shaft in the first plane.

15. The vehicle steering assembly as set forth in claim 13, wherein said second end of said connector rod is cylindrical in shape and includes external threads for engaging a connection to the vehicle wheel assembly.

16. The vehicle steering assembly as set forth in claim 15 including a ball joint disposed between and interconnecting said second end of said connector rod and said pivot arm to allow pivotal movement of said connector rod relative to said vehicle wheel assembly.

17. A vehicle steering assembly comprising;

a vehicle steering mechanism;

a wheel assembly including a pivotal wheel hub for supporting a wheel, a knuckle mounted to said hub, and a pivot arm extending outward from said knuckle;

a connector rod interconnecting said vehicle steering mechanism and said pivot arm for transmitting linear motion from said vehicle steering mechanism through said connector rod to pivot said wheel assembly;

said connector rod including a first end connected to said vehicle steering mechanism, a second end pivotally connected to said pivot arm, and a shaft portion interconnecting said first and second ends;

said connector rod including a first mechanism to allow said connector rod to pivot in a first plane in relation to said vehicle steering mechanism in response to movement of said second end of said connector arm in the first plane, and a second mechanism to allow said connector rod to pivot in a second plane, approximately orthogonal to the first plane, in response to movement of said second end of said connector rod in the second plane.

18. The vehicle steering assembly as set forth in claim 17, wherein said first mechanism and said second mechanism are a common element disposed between and interconnecting said connector rod and said vehicle steering mechanism.